

IN THE CLAIMS

Claim 1 (currently amended) A method of forwarding packets in a communication system having multiple incoming and output service interfaces providing service to multiple user networks ports, said method comprising:

providing said system with multiple forwarding rules said rules based on routing information tables;

receiving said packets at one of said incoming service interfaces ports;

selecting an appropriate forwarding table rule based on a source destination address in said packets; and

forwarding said packets to one of said output service interfaces ports based on a destination address in said packets and information in said appropriate forwarding rules tables.

Claim 2 (currently amended) The method as defined in claim 1 wherein said packets are received at said ports by services interfaces support which define realms each relating to a specific instance of an internetworking service function.

A4  
Claim 3 (currently amended) The A method as defined in claim 2 wherein said specific instance is a public Internet access service.

Claim 4 (currently amended) The A method as defined in claim 2 wherein said specific instance is a virtual private network (VPN) service.

Claim 5 (currently amended) The A method as defined in claim 2 wherein said VPN service is a bridged and/or routed connectivity service.

Claim 6 (currently amended) The A method as defined in claim 2 wherein said VPN service is a network layer connectivity service.

Claim 7 (currently amended) The A method as defined in claim 1 wherein said communication system internetworking devices include includes an ATM transport fabric backplane.

Page 5 of 8

Claim 8 (currently ~~amended~~) A packet ~~forwarder~~ forwarding entity for a communication system comprising:

a plurality of user networks ~~ports~~;

multiple service interfaces providing instances of service ~~input~~ to said user networks ~~ports~~; ~~said service interfaces including source and destination addresses;~~

multiple ~~forwarding tables~~ route servers for calculating multiple forwarded rules relating to instances of service ~~defining isolated realms~~ to which said service interfaces belong based on customer ~~said source~~ information; and

edge forwarders ~~forwarding means~~ to direct said service interfaces to user networks ~~an appropriate port~~ based on ~~the destination address and~~ information in said forwarding rules table.

Claim 9 (cancelled)

Claim 10 (currently amended) The A packet forwarding entity ~~forwarder~~ as defined in claim 8 wherein said instances of service ~~isolated realms~~ are assigned to specific network users.

A4  
Claim 11 (currently ~~amended~~) The A packet forwarding entity ~~forwarder~~ as defined in claim 8 wherein service interfaces relate to physical and logical connections.

Claim 12 (currently ~~amended~~) The A packet forwarding entity ~~forwarder~~ as defined in claim 8 wherein said logical connections include multiple traffic flows from one or more ingress ports.

Claim 13 (currently ~~amended~~) The A packet forwarding entity ~~forwarder~~ as defined in claim 8 wherein said one of said ~~isolated realms relate to a specific~~ instances of services ~~is~~ an internetworking service function.

Claim 14 (currently ~~amended~~) The A packet forwarding entity ~~system~~ as defined in claim 13 wherein said internetworking service function is a Public Internet access service.

Claim 15 (currently ~~amended~~) The A packet forwarding entity ~~system~~ as defined in claim 13 wherein said internetworking service function is a virtual private network (VPN) service.

Page 6 of 8

Claim 16 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 15 wherein said VPN service is a bridged and/or routed connectivity service.

Claim 17 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 16 wherein said internetworking service functions are provided over an ATM network.

Claim 18 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 16 wherein said internetworking devices support multiple protocols.

AY Claim 19 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 18 wherein said internetworking devices provide services at both the packet and frame levels.

Claim 20 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 19 wherein said internetworking services are managed by a single service provider.

Claim 21 (currently amended) The ~~A packet forwarding entity system~~ as defined in claim 18 +9 wherein said multiple protocols include over ATM (MPOA) service via ~~includes~~ a MPOA client lookup cache management function.

Claim 22 (cancelled)

---